



# Town of Freeport

Proposed Amendments to the Freeport  
Zoning Ordinance pertaining to Solar  
Energy Generation Systems

*(as presented at the 02/03/21 Planning Board meeting)*

*As shown, 10 KW roof mounted system at the Freeport Community Library*

*Photo Credit: [www.revisonenergy.com](http://www.revisonenergy.com)*

*As shown, Maine Beer Company Roof Mounted panels in Freeport  
Photo Credit: Maine Beer Company*



- Current Standards: Our current Ordinance has a few references to solar, but no specific uses or standards for solar energy generation systems or solar farms of any size.
- We do have some existing solar uses in Freeport, most of which are roof mounted and/or accessory uses. We have one solar farm completed under old State standards.
- At the request of the Town Council, the Planning Board was asked to look at the use of Community Solar Farm and where the use might be appropriate.



*As shown, Good Will-Hinckley array  
Photo Credit: [www.revisionenergy.com](http://www.revisionenergy.com)*

Photo credit: As seen, roof mounted solar panels at Maine Beer Company, in Freeport.



## Proposed Amendments Section 104: Definitions

- ❖ Some minor amendments to existing definitions.
  
- ❖ New definitions for:
  - ❖ Solar Array Development Area
  - ❖ Solar Energy Generation System
  - ❖ Solar Energy Generation System, Accessory (or Accessory Solar Energy Generation System)
  - ❖ Solar Farm, Small (or Small Solar Farm)
  - ❖ Solar Farm, Large (or Large Solar Farm)

## Proposed Amendments Section 104: Definitions

- **Solar Energy Generation System:**

A complete assembly consisting of one or more solar collectors and associated mounting hardware, electricity storage equipment, transmission and distribution lines, and related infrastructure, which uses photovoltaic (PV) technology (including, but not limited to, solar panels) to collect, convert solar energy to electricity, store and deliver the electricity for on-site or remote consumption. A Solar Energy Generation System may be roof-mounted or ground-mounted.

- **Solar Energy Generation System, Accessory (or Accessory Solar Energy Generation System):**

A Solar Energy Generation System that (i) may be roof or ground-mounted and (ii) generates, stores, and delivers electricity for on-site consumption by a principal use or structure; provided, however, that any excess electricity not consumed on-site may be fed back to the energy grid. An Accessory Solar Energy Generation System is commonly known as a “behind-the-meter” Solar Energy Generation System. An Accessory Solar Energy Generation System shall be considered accessory to a principal use or structure when it is customarily incidental and subordinate to the principal use or structure and is located on the same lot as the principal use or structure.



*Photo credit: Wilbur's of Maine*



*In total, Maine Beer Company has 775 panels .*

*Photo credit: Maine Beer Company*

As shown, a 1 MW municipal system for the City of South Portland (this is one of the largest municipal solar projects in Maine to date). Includes 2,944 panels on a 34-acre landfill. The solar array is expected to generate 1.2 million kilowatt-hours of energy per year, roughly 12% of the electricity used by South Portland's municipal and school buildings. (The system has produced over 1 gigawatt of electricity in its first year of operation)

Photo Credit: [www.revisionenergy.com](http://www.revisionenergy.com)

## Proposed Amendments Section 104: Definitions

### Solar Array Development Area:

The aggregate area of land occupied by the complete assembly of a ground-mounted Solar Energy Generation System, including but not limited to: (i) the solar photovoltaic (PV) technology (including, but not limited to, solar panels) and associated mounting hardware and equipment, (ii) all inter-panel space, and (iii) all impervious surfaces. The Solar Array Development Area does not include areas adjacent to the ground-mounted Solar Energy Generation System that must, by virtue of an easement, lease condition, or other legal instrument, be kept free of structures or vegetation (other than grass) in order to capture the unobstructed flow of solar insolation (sunlight) for the Solar Energy Generation System, and, does not include driveway(s) required to access the solar array development area.

*As shown, Maine Idyll Community Solar Farm, approximately 89 kw system, includes about 360 panels and covers about half of an acre Photo Credit: [www.revisionenergy.com](http://www.revisionenergy.com)*



#### Proposed Amendments Section 104: Definitions

#### Solar Farm, Small or Small Solar Farm:

A Solar Energy Generation System, that (i) may be roof or ground-mounted; (ii) primarily generates and delivers electricity to the energy grid for off-site consumption; and (iii) if it is ground-mounted, has a Solar Array Development Area that is less than 87,120 square feet (2 acres).

*As shown, 5.6 mw +/- 30 acre solar farm in Warren, MA*



Proposed Amendments Section 104: Definitions

**Solar Farm, Large or Large Solar Farm:**

A Solar Energy Generation System that (i) may be roof or ground-mounted; (ii) primarily generates and delivers electricity to the energy grid for off-site consumption; and (iii) if it is ground-mounted, has a Solar Array Development Area that is 87,120 square feet (2 acres) or greater but less than 30 acres.



Zoning District	Abbreviation	Small Solar Farm	Large Solar Farm
<b>Rural Residential District I</b>	"RR-I"	✓	
<b>Rural Residential District IA</b>	"RR-IA"	✓	
<b>Rural Residential District II</b>	"RR-II"	✓	
Medium Density Residential District I	"MDR-I"		
<b>Medium Density Residential District II</b>	"MDR-II"	✓	
<b>Medium Density District (A&amp;B)</b>	"MD"	✓	✓
Village District I	"V-I"		
Village District I-R	"V-IR"		
Village District II	"V-II"		
<b>Commercial District I</b>	"C-I"	✓	✓
<b>Commercial District III</b>	"C-III"	✓	
<b>Commercial District IV</b>	"C-IV"	✓	✓
Village Commercial District I	"VC-I"		
Village Commercial District II	"VC-II"		
Village Commercial District III	"VC-III"		
Village Commercial District IV	"VC-IV"		
Village Mixed Use District I	"VMU-I"		
Village Mixed Use District II	"VMU-II"		
<b>Local Business District</b>	"L-B"	✓	
<b>Industrial District I</b>	"I-I"	✓	
<b>Industrial District II</b>	"I-II"	✓	✓
Marine Waterfront District	"MW"		
Resource Protection District I	"RP-I"		
<b>Resource Protection District II</b>	"RP-II"	✓	
Island District	"ID"		

**New proposed uses of  
Solar Farm, Large and  
Solar Farm, Small  
by Zoning District**



## New Section 534 Solar Energy Generation Systems:

- ALL solar uses will require permits from the Codes Enforcement Officer
- Subject to Design Review and the standards of the Freeport Village Overlay District, as applicable
- Clarify use and process to allow solar as an accessory use

## New Section 534 Solar Energy Generation Systems

- All solar farms will be subject to Site Plan Review by the Project Review Board
- All solar farms will have new/additional application requirements for submissions including, but not limited to:
  - 1) a decommissioning plan for the removal of the equipment (at the end of its life) and a stabilization plan for the site.
  - 2) proof of financial capacity to build, maintain and remove the farm
- Large solar farms will have additional application requirements for submissions, including obtaining sign-offs from outside agencies such as the Maine Historic Preservation Commission, Maine Natural Areas Program, Maine Department of Inland Fisheries and Wildlife, and/or the Maine Department of Environmental Protection.



*As shown, Maine Idyll Community Solar Farm, approximately 89 kw system, includes about 360 panels and covers about half of an acre. Photo Credit: [www.revisionenergy.com](http://www.revisionenergy.com)*

## New Section 534 Solar Energy Generation Systems

- New Performance standards for all solar farms:
  - Height limit of 25 feet for ground mounted systems
  - Setbacks for any part of the solar array development and other proposed structures of at least 20 feet, or the setbacks of the underlying zoning district (if greater)
  - Setback requirements of (50,50,&75) when farms in certain districts abut certain residential districts
  - Updated performance standards (front landscaped setback) for farms in any of the Commercial (C-I, C-III, C-IV) Districts
- Buffer Zones, Stormwater, Lighting, Land Clearing, Safety, Protection of Natural and Cultural Resources
- Financing and Insurance – require financing be fully secured before ANY work can begin on the site & maintain liability insurance for the full length of the useful life of the farm
- Requirements for decommissioning with standards for when a farm could be considered abandoned and therefore need to be removed prior to the previously identified “end of useful life”
- Large solar farms, and any small solar farms with a solar array development area of at least one acre, will be required to have a performance guarantee established to cover the cost of decommissioning



*As shown, Maine Idyll Community Solar Farm, approximately 89 kw system, includes about 360 panels and covers about half of an acre. Photo Credit: [www.revisionenergy.com](http://www.revisionenergy.com)*